

JUN 4 1848

At the end of each month, turn the
it off; this will preserve the Calendar

Calendar page backward instead of tearing
for the whole year in good shape.

1897.

CALENDAR AND CATALOGUE

LIBRARY
NEW YORK
BOTANICAL
GARDEN 1897.

—OF—

FERTILIZERS AND CHEMICALS.

“Stockbridge”

and

“Bowker”



Special ♪ ♪
 ♪ ♪ Manures.

Issued by

BOWKER FERTILIZER
COMPANY,

(Capital,
\$1,000,000.)

BOSTON AND NEW YORK.

✻ ✻ Compliments of ✻ ✻

LIST OF MANUFACTURES.

AGRICULTURAL CHEMICALS. All kinds,—Nitrate of Soda, Sulphate of Ammonia, Bone Black, Muriate and Sulphate of Potash, etc., etc.

ASHES. Wood, from Canada; collected, tested and shipped under our own brand and guarantee of strength.

BONE. Bowker's Fresh Ground Bone; Bowker's Market Bone; Bowker's Harvest Bone; Bowker's Bone and Potash, etc.

FRUIT FERTILIZERS. Stockbridge Tree Manure; Stockbridge Strawberry and Fruit Manure; Bowker's Bone and Potash, Bone, etc.; Bowker's Fruit Special.

GARDEN FERTILIZERS. Stockbridge Vegetable Manure; Bowker's Lawn and Garden Dressing; Bowker's Farm and Garden Fertilizer; Bowker's Market Garden Fertilizer.

GENERAL FERTILIZERS. Bowker's Hill and Drill Phosphate; Bowker's Farm and Garden Fertilizer; Bowker's Sure Crop Phosphate; Bowker's Superphosphate and Potash, etc., etc.

GRASS AND GRAIN FERTILIZERS. Stockbridge Grass (Top-Dressing) Manure; Stockbridge Grass (Seeding-Down) Manure; Stockbridge Corn and Grain Manure; Bowker's Hill and Drill Phosphate; Bowker's Ammoniated Dissolved Bone; Bowker's Bone and Potash Brand for Seeding Down, etc.

MARKET GARDEN FERTILIZERS. Stockbridge Cabbage and Cauliflower Manure; Stockbridge Onion Manure; Stockbridge Vine Manure; Stockbridge Pea and Bean Manure; Stockbridge Asparagus Manure; Stockbridge Celery Manure; Stockbridge Lettuce and Spinach Manure; Bowker's Market Garden Fertilizer; Bowker's Farm and Garden Phosphate; Bowker's Greenhouse Chemicals, etc.

POTATO FERTILIZERS. Stockbridge Potato Manure; Bowker's Potato and Vegetable Manure, etc.

ROOT FERTILIZERS. Stockbridge Potato and Vegetable Manure; Stockbridge Root Manure; Bowker's Potato and Vegetable Manure; Bowker's Farm and Garden Phosphate, etc.

SEEDING-DOWN FERTILIZERS. Stockbridge Grass (Seeding-Down) Manure; Bowker's Bone; Bowker's Bone and Potash Brand for Seeding, etc.

THOMAS PHOSPHATE SLAG. Tested and put out under the Bowker brand and guarantee as to strength.

TOBACCO FERTILIZERS. Stockbridge Tobacco Manure; Bowker's Tobacco Grower; Bowker's Tobacco Starter, etc.

VINE FERTILIZERS. Stockbridge Vine Manure; Stockbridge Pea and Bean Manure.

VEGETABLE FERTILIZERS. Stockbridge Potato and Vegetable Manure; Stockbridge Cabbage and Cauliflower Manure; Stockbridge Onion Manure; Stockbridge Vine Manure for Squashes, etc.; Stockbridge Pea and Bean Manure; Stockbridge Root Manure; Stockbridge Asparagus Manure; Stockbridge Celery Manure; Stockbridge Lettuce and Spinach Manure; Bowker's Potato and Vegetable Manure.

ANIMAL FERTILIZERS. Bowker's Bone and Blood; Bowker's Bone, Blood and Potash; Bowker's Water Soluble Fertilizer; Bowker's Animal Fertilizer, etc.

FISH FERTILIZERS. Bowker's Dry Fish; Bowker's Fish and Potash; Gloucester and Bristol Fish and Potash, etc.

GREENHOUSE FERTILIZERS. Stockbridge Lettuce and Spinach Manure; Bowker's Greenhouse Chemicals. Bowker's Food for Flowers, etc.

LAWN FERTILIZERS. Stockbridge Grass Top-Dressing; Bowker's Lawn and Garden Dressing (odorless), etc.

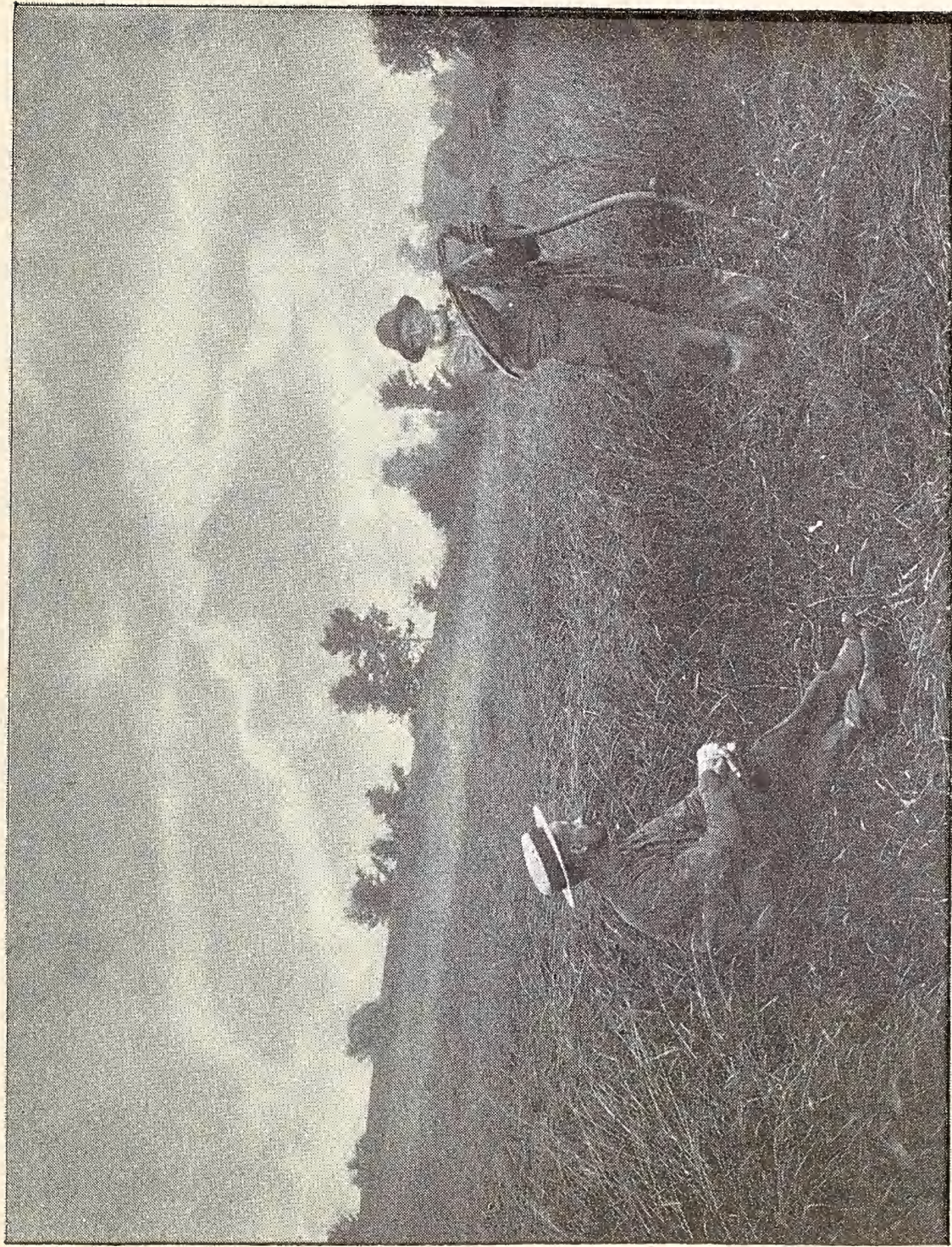
The STOCKBRIDGE ^{SPECIAL COMPLETE} MANURES ^{DOUBLE STRENGTH}

contain on the average *twice* as much plant-food as ordinary fertilizers, so that one ton of the Stockbridge will go further and cost less than two tons of other kinds. Therefore thrifty farmers buy the Stockbridge for economy's sake, if for no other reason.

The BOWKER ^{SPECIAL AND GENERAL} FERTILIZERS ^{HIGH GRADE,}

like all other goods offered by the Bowker Fertilizer Company, give the customer good value for his money. They are made of the best materials, and will give excellent results in the field. No fertilizers made by any other concern can excel them in this respect.

880 1/2



“ AND THE STOCKBRIDGE DID IT.”

Photograph of a portion of a field of timothy grown on Bowker's Stockbridge Manure on the farm of Mr. A. G. Sharp of Richmond, Mass. This field has had no farm-manure for over seventeen years. The field was in raspberries for eleven years, which were followed by rye and two heavy crops of clover. Nothing whatever has been applied to the field, except fertilizers, since the raspberry-bushes were removed, showing that the fertilizers have been lasting in their effects.

1897		January.		1897		
SUN.	* MON.	* TUE.	* WED.	* THU.	* FRI.	* SAT.
☾	☾	☾	☾	☾	I	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24/31	25	26	27	28	29	30
New Moon, 3d.		First Quarter, 10th.		Full Moon, 18th.		Last Quarter, 25th.

The Bowker Fertilizer Company.

The Bowker Fertilizer Company was founded in 1873.

It has a cash capital of \$1,000,000.

It is not allied with or controlled by any other company, trust or syndicate.

Its stockholders are chiefly business men, farmers and market gardeners in New England.

It has two thoroughly equipped factories of a capacity of 50,000 tons annually, one located near New York and one near Boston, with water and rail connections.

It has agencies throughout the New England, Middle and Southern States and in the Provinces, with warehouses in the chief centres to facilitate prompt shipments.

Its leading brands are the Stockbridge Special Manures (Double Strength), introduced in 1875, but it will supply, mixed or unmixed, any special formulas in large or small quantities.

It is also prepared to furnish every kind or quality of fertilizer material or chemical known in the trade, either directly or through its agencies.

Its name will be found on everything it sells. It sells by chemical test, and it will make good any difference in *value* if its goods are found wanting, *which has never occurred*.

As there are inferior and worthless forms of fertilizer in the market, Prof. Johnson of Connecticut, the oldest State inspector, publishes this caution :—

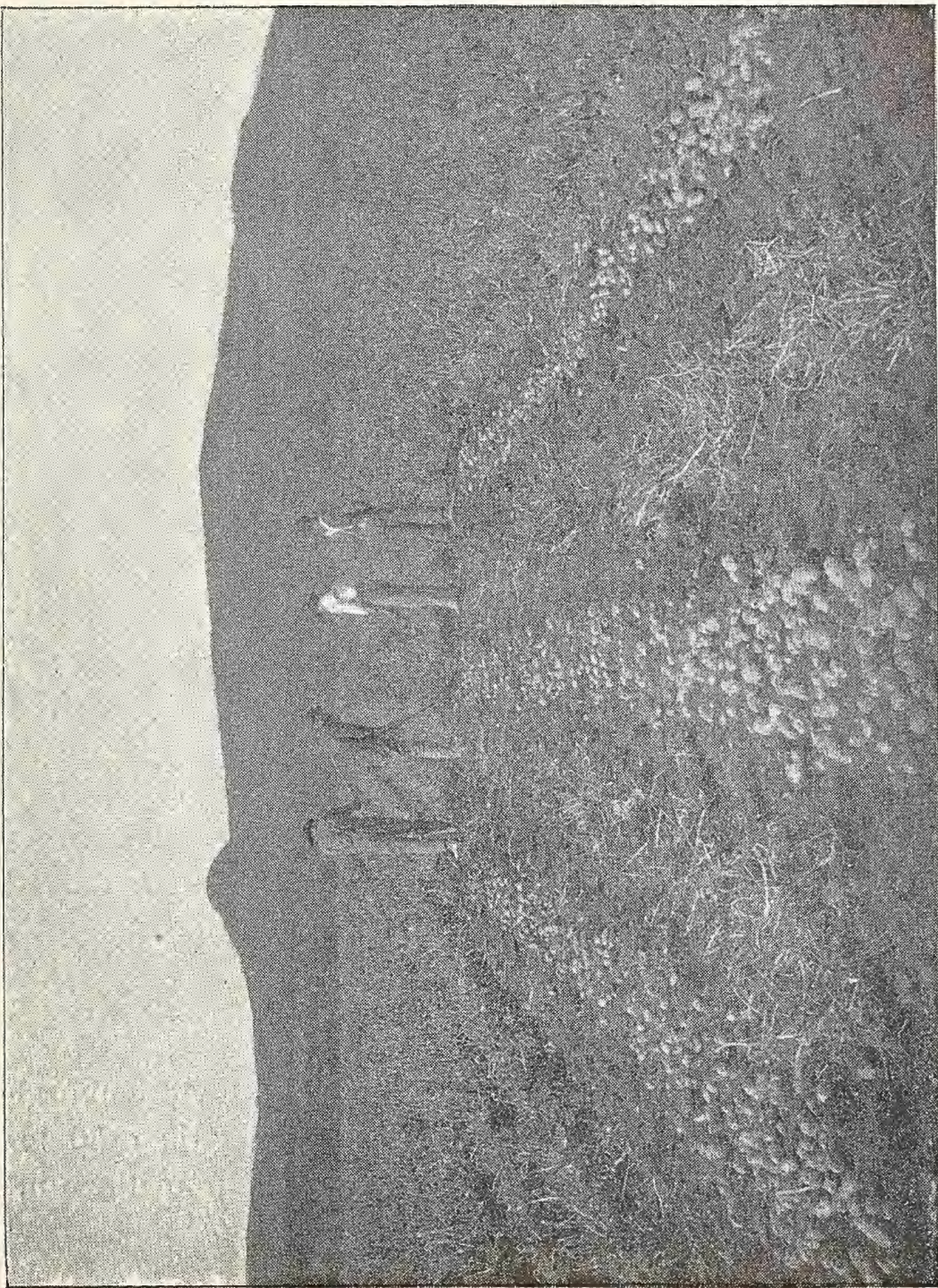
“The *main security* of purchasers is in dealing with firms which have an established reputation, and avoiding ‘cheap goods’ offered by irresponsible parties.”

The *Country Gentleman and Albany Cultivator* says editorially under the head of “Trustworthy Fertilizers” :—

“We suppose most readers understand that anything offered by the Bowker Company . . . is sure to be excellent of its kind. . . . It is emphatically a concern with which it is safe to deal.”

Your correspondence is solicited, and we would suggest that you write us for quotations and estimates before purchasing your mixed fertilizers or chemicals for the coming season. We shall also be glad to offer advice or suggestions touching the composition of fertilizers or any questions pertaining thereto.

BOWKER FERTILIZER
COMPANY,  43 Chatham Street, Boston, Mass.
27 Beaver Street, New York. 



893 BARRELS ON 8 ACRES OR 307 BUSHELS PER ACRE.

A. M. Dudley & Son, Castle Hill, Aroostook County, Me., write: "From 8 acres of land we raised 893 barrels of potatoes grown exclusively on Stockbridge Potato Manure, applied at the rate of 600 pounds per acre. We think the fertilizer increased the yield at least 150 bushels per acre. We have used several different brands, but consider Bowker's Stockbridge Special Manure far ahead of any other we have ever used." (See photograph above.)

1897		February.		1897		
SUN.	* MON.	* TUE.	* WED.	* THU.	* FRI.	* SAT.
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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	☾	☾	☾	☾	☾	☾
New Moon, 1st.		First Quarter, 9th.		Full Moon, 17th.		Last Quarter, 23rd.

Bowker's "Stockbridge" DOUBLE STRENGTH Manures

THE ORIGINAL SPECIAL FERTILIZERS.

(INTRODUCED 1875.)



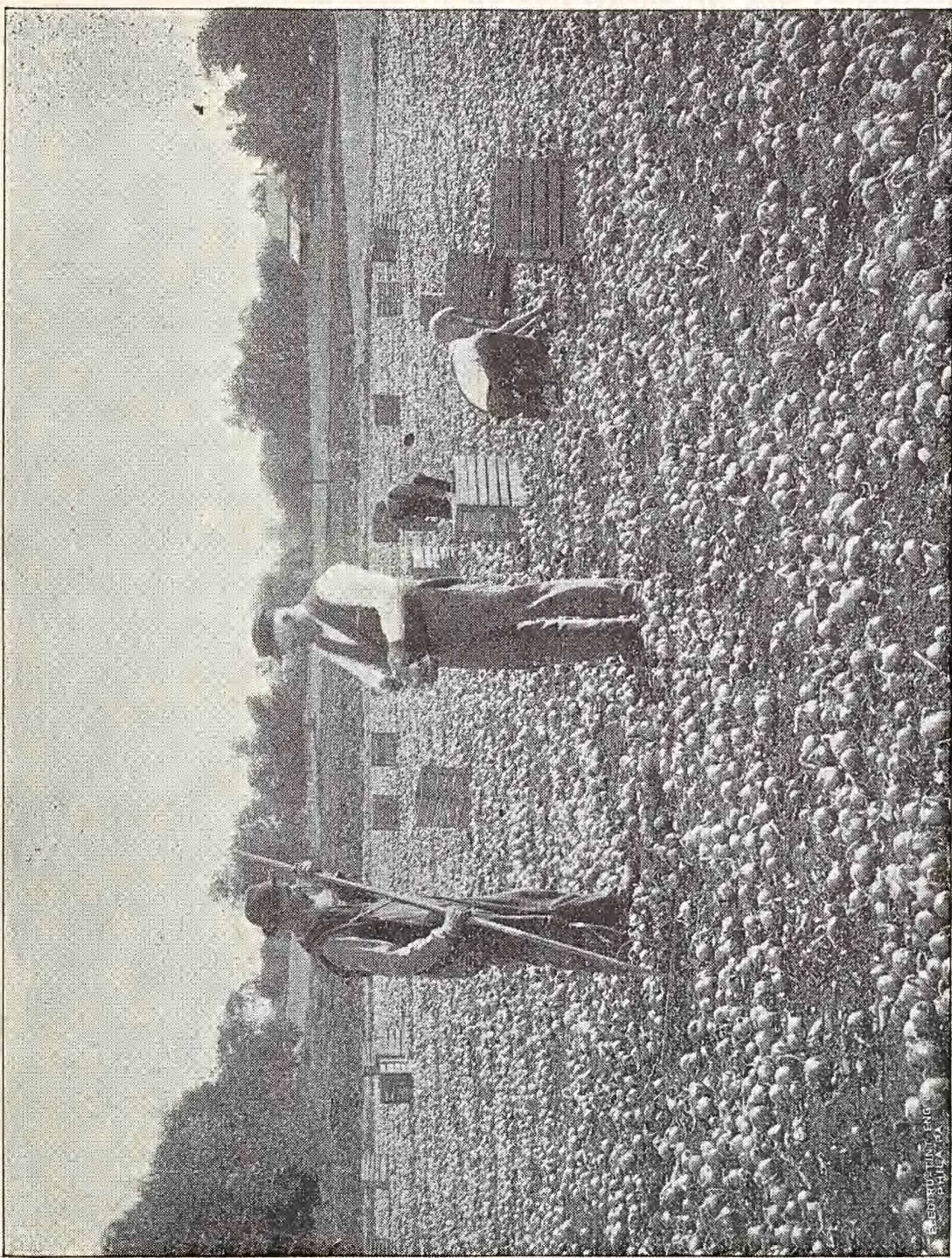
*There is nothing which equals
Stable manure in every respect,
But Bowker's Stockbridge Manures are excellent substitutes,
And for some crops superior to it.*



BOWKER'S Stockbridge Manures, "double strength," manufactured by Bowker Fertilizer Company, contain on the average *twice as much* plant-food as the ordinary fertilizers, so that one ton of Stockbridge will go further and cost less than *two tons* of other kinds. Therefore thrifty farmers buy the Stockbridge for economy's sake, if for no other reason.

WHAT IS THE STOCKBRIDGE PRINCIPLE?

The Stockbridge Special Complete Manures were originated by Professor Levi Stockbridge, of the Massachusetts Agricultural College. They were the first special manures introduced in this country, and are founded on the principle of supplying the crop, in suitable proportion, association, and form, with that plant-food which it requires, and which it cannot obtain for itself from the soil or air in sufficient quantity, the supply being based upon an analysis of the crop *and its habits and conditions of growth.*



THIRD YEAR IN ONIONS ON BOWKER'S STOCKBRIDGE.

Onion-field of Jno. H. George, Methuen, Mass. The 1894 crop was 897 bushels per acre, the 1895 crop was 963 bushels, and the 1896 crop was 726 bushels, all grown on Stockbridge. All three crops were awarded first prize by the Essex County Agricultural Society.

1897		March.		1897		
SUN.	* MON.	* TUE.	* WED.	* THU.	* FRI.	* SAT.
☾	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	☾	☾	☾
New Moon, 3rd.		First Quarter, 11th.		Full Moon, 18th.		Last Quar, 25th.

Stockbridge Potato Manure.

Potatoes make the greater part of their growth in sixty days. They must grow quickly and continuously to be good; and hence a potato fertilizer must be a soluble one, containing plant-food ready to act not only at the start, but gradually throughout the season. The Stockbridge Special Potato Manure contains all the elements required for an average yield, and at the same time supplies them in forms best suited to the potato crop; and potatoes grown on it are invariably good, being *smooth and fair without and mealy and pure within*. *Moreover, they are less likely to rot than those raised on stable manure.*

Application. The quantity usually applied is from 1,200 to 1,800 lbs. per acre, although market gardeners find it profitable to apply a larger quantity, strewn along the furrows and mixed thoroughly with the soil. If 1,500 lbs. or more is applied, it is well to sow one-half broadcast and strew the remainder along the furrows.

Stockbridge Corn and Grain Manure.

For Indian Corn, Sweet Corn, Fodder Corn, and Small Grains.

The Stockbridge Corn Manure is based, like all the other Stockbridge Special Manures, upon the analysis of the crop, and contains the elements that are necessary and in the right forms to produce an average yield. It gives the plant a vigorous start, and will back it up throughout the season.

Application. For Indian or Sweet Corn. From 800 to 1,500 lbs. per acre is the usual quantity applied. If the soil is poor or run out, a larger quantity should be used. When planting on greensward, however, 600 lbs. will be sufficient, especially if the sod be a heavy one, and turned over in the spring. This fertilizer should be applied in the same way as manure, i.e., a larger quantity to a poor field and a smaller quantity to a rich field. Apply one-fourth in the furrows or hills, and three-fourths broadcast, harrowed into the soil. If manure is used in connection with the fertilizer, spread the manure broadcast, and harrow it in, and sow the fertilizer in the furrows.

For Wheat, Rye, Oats and Barley. Sow from 400 to 600 lbs. per acre, broadcast, and harrow it in with the grain, or a portion may be drilled in, being careful to keep it away from the seed.

Stockbridge Grass (Top-Dressing) Manure.

For Top-Dressing Mowings and Pastures, and Winter Grains, also for Hungarian and Millet.

The plant-food in the Stockbridge Grass Top-Dressing Manure is obtained almost wholly from chemicals, and hence it is nearly all soluble in water. Therefore, when applied as a surface dressing, it is dissolved with the first rain or heavy dew, and absorbed by the ground, where it immediately nourishes the roots. Grass takes from the soil a large amount of plant-food, and in New England it must have it between the 15th of April and the 15th of June.

Application. For Mowings and Pastures. The amount usually applied is from 400 to 600 lbs. per acre. Many farmers find, however, after applying the above quantity for a year or so, half the amount will give them good results. The true principle of manuring mowing lands and pastures, especially on light soil, is to apply a little at a time and often; that is, to top dress with a moderate quantity each year, particularly if the land be light and leachy.

For Top-Dressing Winter Grain. In the spring, after a particularly hard winter, it is often necessary to apply something to bring the crops along. The best thing for this purpose is the Stockbridge Top-Dressing Manure. It will promote a vigorous early maturity, and often turn expected failure into success.

For Hungarian and Millet. Apply from 400 to 600 lbs. to the acre, broadcast, and harrowed into the soil at the time the seed is sown.

Stockbridge Grass (Seeding-Down) Manure.

For Stocking Down Grass in the Fall or Spring.

In seeding down grass land with fertilizer, we should use a base,—that is, a fertilizer which contains those elements that remain in the soil until they are taken out by the grass-plants, such as phosphoric acid and potash,—and use only enough ammonia to give the grass a good catch and a good crop for the first or second year.

The Stockbridge Seeding-Down Manure is a basic fertilizer; that is to say, it contains sufficient phosphoric acid and potash in slow-acting forms for a number of crops, and sufficient ammonia to insure a good catch and a vigorous growth of young roots. It is also as lasting as stable manure, *provided* the same money value is applied.

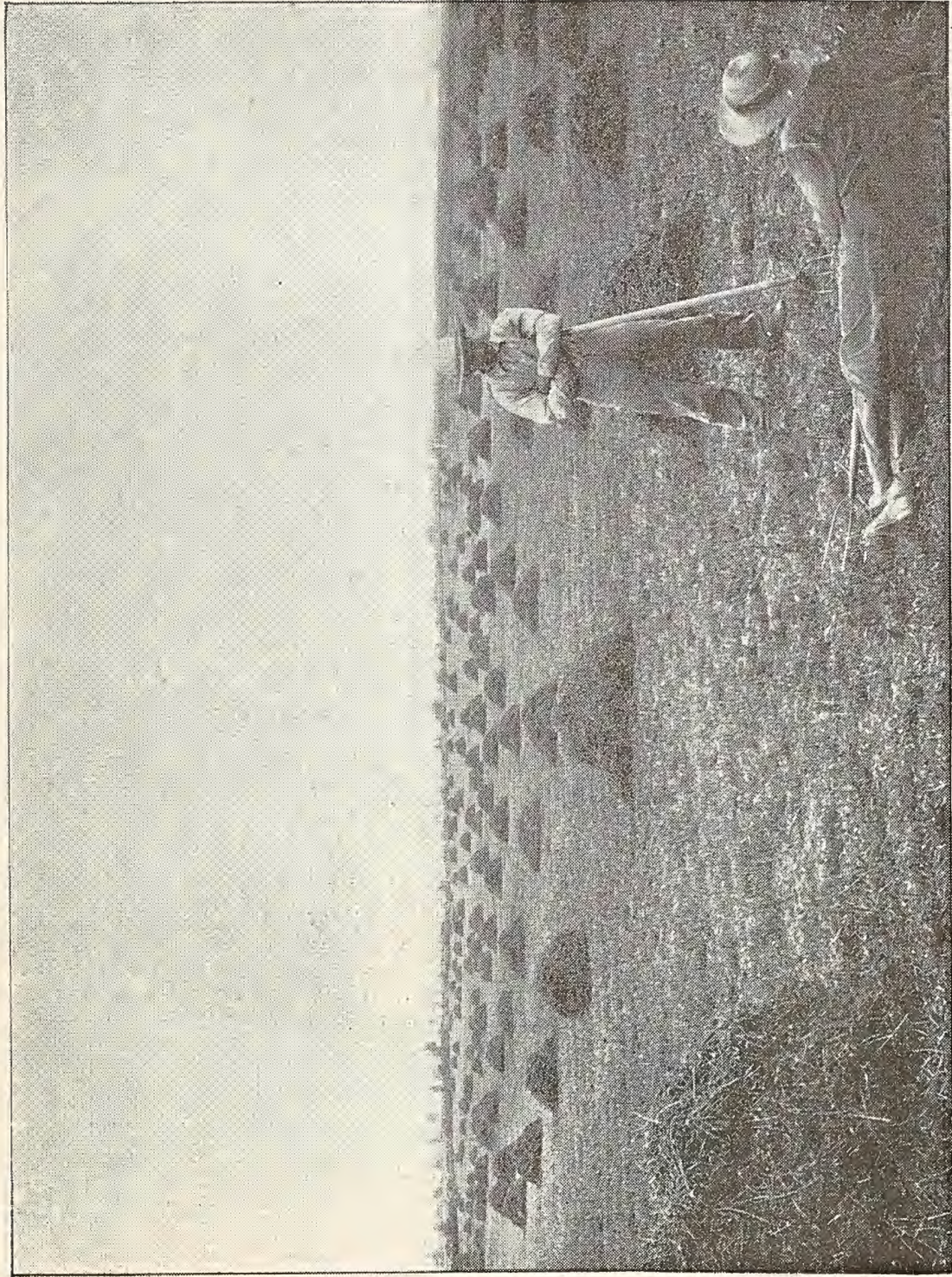
Application. Apply 600 to 800 lbs. per acre, sown broadcast and harrowed into the soil at the same time the seed is harrowed or brushed in. If a liberal dressing of manure is used, then apply 400 to 600 lbs. This will insure a good catch. Grain or turnip seed may be sown at the same time.

Stockbridge Vegetable Manure.

For Early and Late Vegetables.

In growing vegetables, we are growing *unnatural* products. Most of them, if left to nature, would run to seed rather than to bulb, root or leaf. The Stockbridge Vegetable Manure is made to produce a vigorous, healthy growth, and is composed of chemicals specially adapted to vegetables, which feed this class of crops in a manner to produce healthy growth which withstands disease and matures early. Healthy growth is “tender, bright and crisp”; slow growth is “tough, dull and rusty.”

Application. Apply from 1,500 to 2,000 lbs. per acre. As a general rule the fertilizer should be sown three-fourths broadcast, and the balance sprinkled in the hills or drills and thoroughly mixed with the soil, taking care that it does not come in contact with the seed, young roots or green leaves. The fertilizer will be found to do as well as ten cords of manure,—the amount usually applied.



11 ACRES CLOVER ON BOWKER'S STOCKBRIDGE.

This field, belonging to Mr. Joseph Howland of Berkeley, Mass., yielded about 2½ tons per acre. For many years, previous to 1891, this land had been cropped with fertilizer alone, no stable-manure being applied to it. In 1891, Stockbridge was used on the land and has been every year since with various crops: corn, beans, potatoes, tomatoes, rye, etc., always with good results. The piece was seeded with Stockbridge in the fall of 1895, nothing being applied in 1896. The piece was photographed July 3, 1896.

1897		April.		1897		
SUN.	* MON.	* TUE.	* WED.	* THU.	* FRI.	* SAT.
☾	☾	☾	☾	I	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	☾
New Moon, 2nd.		First Quarter, 10th.		Full Moon, 17th.		Last Quarter, 23rd.

Stockbridge Cabbage and Cauliflower Manure.

The cabbage crop is one of the most greedy crops that grows. The more manure you give it, the more it seems to want.

The Stockbridge Cabbage Manure is rich in soluble salts which feed the crops from beginning to end, and supplies just what is needed to make the crop head up. It has proved a great success.

Application. Apply for cabbages from 1,800 to 2,600 lbs. per acre, and for cauliflowers from 1,500 to 2,000 lbs. Sow two-thirds broadcast and harrow it into the soil. The other third may be strewn along where the plants are set, and mixed thoroughly with the soil before setting out the plants; or it may be hoed in about the plants after they are set out. If stable manure is used, less fertilizer may be used. Spread the manure broadcast without composting, and use part of the fertilizer broadcast and part about the plant.

Stockbridge Onion Manure.

The Stockbridge Onion Manure contains a large amount of plant-food in the most active chemical forms, which will be more likely to produce a vigorous, healthy growth from start to finish than stable manure, *which must rot before it can nourish*, and in the rotting fosters the growth of smut and maggots.

Application. Apply from 1,500 to 2,000 lbs. per acre, sown broadcast and harrowed into the soil. If used with manure a smaller quantity may be used, depending upon the quantity and richness of the stable manure applied. By using the Stockbridge, which contains no seeds of weeds or disease, much of the expense of weeding may be saved, and this saving in labor will often pay for the fertilizer used.

Stockbridge Vine Manure.

For Squashes, Cucumbers, Melons, etc.

The Stockbridge Vine Manure is made to produce rapid growth, and at the same time it will "back up" the crop to the end of the season. Composted manure and night-soil are good for vines, because they are active and rich in ammonia salts. This fertilizer contains similar chemical salts, and takes the place of night-soil or manure, and saves the labor of hauling and composting.

Application. For Squashes, Cucumbers, Melons, etc. Apply 1,500 to 2,000 lbs. per acre, two-thirds sown broadcast and worked *deeply* into the soil, and one-third sprinkled in the hills—about a pint to each hill—*thoroughly mixed and covered with the soil before dropping the seed*. If manure is used, it can be spread broadcast and worked into the soil without composting, and a less quantity of fertilizer used, depending on the strength and richness of the manure.

For Tomatoes. 1,500 to 2,000 lbs. per acre, one-half sown broadcast and the remainder dropped in the hills and *thoroughly mixed* with the soil before setting out the plants.

Stockbridge Pea and Bean Manure.

The pea and bean crop is a good illustration of the necessity of special fertilizers. The Stockbridge principle is to supply crops in suitable form with

what they do not obtain from the soil or air in sufficient quantity, being based upon an analysis of the crop and *its habits and conditions of growth*. The pea and bean, and crops of this class, are large nitrogen gatherers; therefore it is not necessary to supply so much as the analysis of these crops calls for. A fertilizer made right for cabbages, for example, applied to peas or beans, would produce all vines and no pods; while the pea and bean fertilizer used on cabbages would produce a very poor harvest. The Stockbridge Pea and Bean Manure supplies the needed elements, and gives great satisfaction.

Application. Apply from 1,000 to 1,500 lbs., three-fourths sown broadcast and harrowed into the soil, and one-fourth strewn along the furrows. Mix thoroughly with the soil before dropping the seed, or a portion may be hoed in after the crop comes up.

Stockbridge Root Manure.

For Turnips, Beets, Parsnips, etc.

One of the most marked illustrations of special fertilization is that of roots, especially turnips. It was discovered long ago, in England, that phosphoric acid, or soluble phosphate of lime, was a specific for this crop. And what is true of the turnip is true of beets and parsnips.

The Stockbridge Root Manure is rich in phosphoric acid, while also containing ammonia and potash in sufficient quantity.

Application. The quantity applied is from 800 to 1,200 lbs. per acre, and is generally sown broadcast, though for ruta-bagas, or stock beets, which are grown in drills, the fertilizer should be sown along in furrows and then ridged up before the seed is sown. On moist land roots should be ridged up, but on dry soil flat culture is considered preferable.

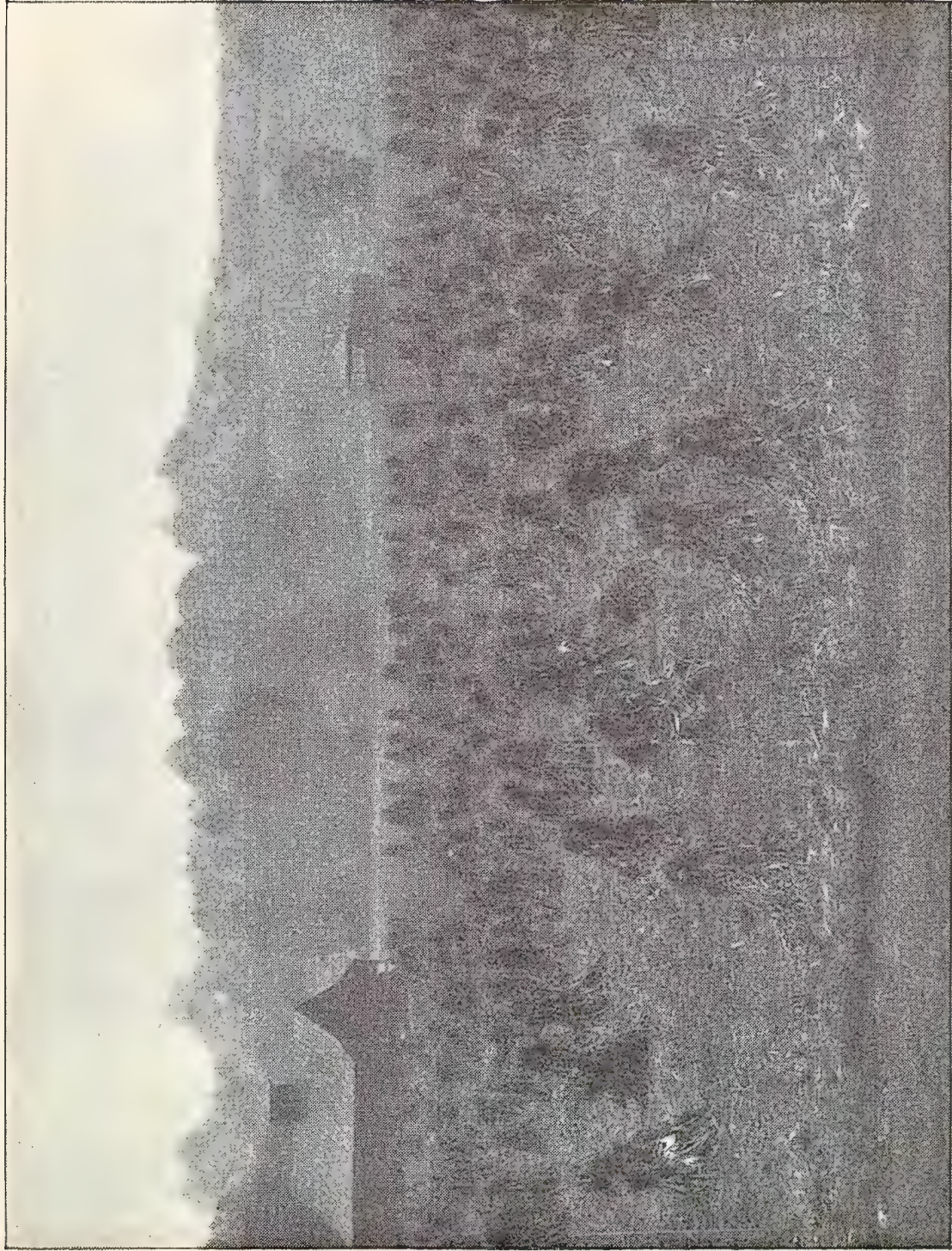
Stockbridge Asparagus Manure.

In the Stockbridge Asparagus Manure we supply the nitrogen principally in the form of nitric acid, and also potash and phosphoric acid in abundant and available forms, and to aid in the development of a healthy root growth, which is essential for permanent results.

Application. If applied in the early spring at the rate of 1,200 to 2,000 lbs. between the rows, it will produce early and abundant cuttings, attractive in color and juicy and tender. Those who have never used this fertilizer will be surprised to see how the quality as well as the quantity is improved by its application.

Stockbridge Celery Manure.

The Stockbridge Celery Manure, prepared from chemicals, free from weed-seeds and germs of disease or blight, will produce a large crop of excellent quality, which will *bleach well and keep well*.



MODERN CORN-GROWING WITH STOCKBRIDGE.

Photograph of 20-acre corn-field at Bowditch's Millwood Farm, Framingham, Mass. Between 60 and 70 acres were planted to corn, a part with manure and a part with Stockbridge Corn Manure. The average yield of shelled corn per acre on the manure was $92\frac{1}{2}$ bushels, and on the Stockbridge $88\frac{5}{8}$ bushels per acre; but, owing to the increased cost for labor in applying the manure, the cost of the shelled corn per bushel was $52\frac{1}{2}$ c., while that grown on the Stockbridge Fertilizer was only $28\frac{1}{3}$ c. The planting, cultivation and harvesting in both cases were all done by horse-power; and a careful record was kept of the costs and results in each case.

1897		May.		1897		
SUN.	* * MON.	* * TUE.	* * WED.	* * THU.	* * FRI.	* * SAT.
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2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					
New Moon, 1-31st.		First Quarter, 9th.		Full Moon, 16th.		Last Quarter, 23d.

Application. It should be applied three times. Apply 400 to 600 lbs. per acre to the seed-bed when the seed is sown. Then apply 1,000 to 1,500 lbs. when the plants are transplanted or pricked out, sown broadcast across the trenches or furrows before the plants are set out, and worked into the soil. Then, just before the celery is banked up, apply 500 to 1,000 lbs., so that it will be worked into the soil which is brought about the plant. If the seed-bed where the seed is sown was rich from previous application of manure or fertilizer, then none need be applied at this time; but the object of three applications is to feed the plant from start to finish.

Stockbridge Lettuce and Spinach Manure.

For Use out of Doors or under Glass.

As we understand it, in growing lettuce under a glass or in the open field, three things are essential to successful culture: *first*, rapidity and vigor of growth, which will make the lettuce tender and crisp; *second*, cleanliness and freedom from rot and mildew; and *third*, but not least, proper maturing or heading up.

This manure is prepared with a special view to producing a tender leaf or foliage growth. A plant that grows slowly is apt to be tough. One that grows healthily and vigorously will be tender and bright.

Application. Apply from one to two lbs. to each thirty square feet or two hot-bed sash, or from three to six pounds to each one hundred square feet, sown broadcast and worked into the soil just before or just after the last transplanting, care being taken not to get it upon the roots or leaves of the plant.

For Field Culture. Apply just before the plants are transplanted, at the rate of 1,500 to 2,000 lbs. per acre, sown broadcast, and worked into the soil.

Stockbridge Strawberry and Fruit Manure.

For Strawberries, Small Fruits, Grape Vines, etc.

In the Stockbridge Fruit Manure we aim to supply not alone the required elements in the proper proportions, but in forms which are acceptable to the plant, and which neither produce vine at the expense of fruit, nor fruit at the expense of vine, but a normal, healthy growth.

Application. For Strawberries. Apply 1,000 to 1,500 lbs. per acre. This will give the best results, producing healthy plants, and increase the production of fruit. Apply one-half in early spring, and one-half in summer after fruiting. It not only produces strong vines and large yields, but berries which are sweeter, firmer, more marketable and bring a better price. Berries grown on highly nitrogenous manures, like guano, are usually softer and not so readily handled. This manure not only contains a good percentage of nitrogenous matter, but also several chemicals which go to make a firm, hard berry of good flavor and large size.

For Grapes, Raspberries and Blackberries. Apply 400 to 800 lbs. per acre. This will be found an excellent dressing, producing a healthy growth of vine, increasing the size

and quantity of fruit, improving its quality, and increasing the amount of sugar found in it, as it does in all fruits. Sow broadcast in spring or fall, and work into the soil. This may be applied to the currant, gooseberry, etc.

Stockbridge Tobacco Manure.

Prof. Levi Stockbridge, of the Massachusetts Agricultural College, was the first to introduce a special fertilizer for tobacco. His formula in 1875 to produce 1,500 lbs. tobacco-leaf, and the natural proportion of stalk per acre without any other manure, over and above what the natural yield of the land would produce, called for 144 lbs. Ammonia, 16 lbs. Soluble Phosphoric Acid, 172 lbs. Actual Potash, besides lime and magnesia. He also laid down the rule that there should be no chlorides or salt present, and that the ammonia should be obtained, to a large extent, from chemicals, free from chlorides or acid.

Application. We recommend the application of 1,500 to 2,500 lbs. per acre without any other fertilizers, the application of 2,000 lbs. being a liberal quantity. The latest method of application is to sow half of it before ploughing, ploughing it under lightly, or working it in with a wheel-harrow; and, two or three weeks later, plough the land to the ordinary depth, and sow on the remainder of the fertilizer, working it in with a wheel-harrow. After this the land is ready for the usual fitting before setting out the plants.

Stockbridge Tree Manure.

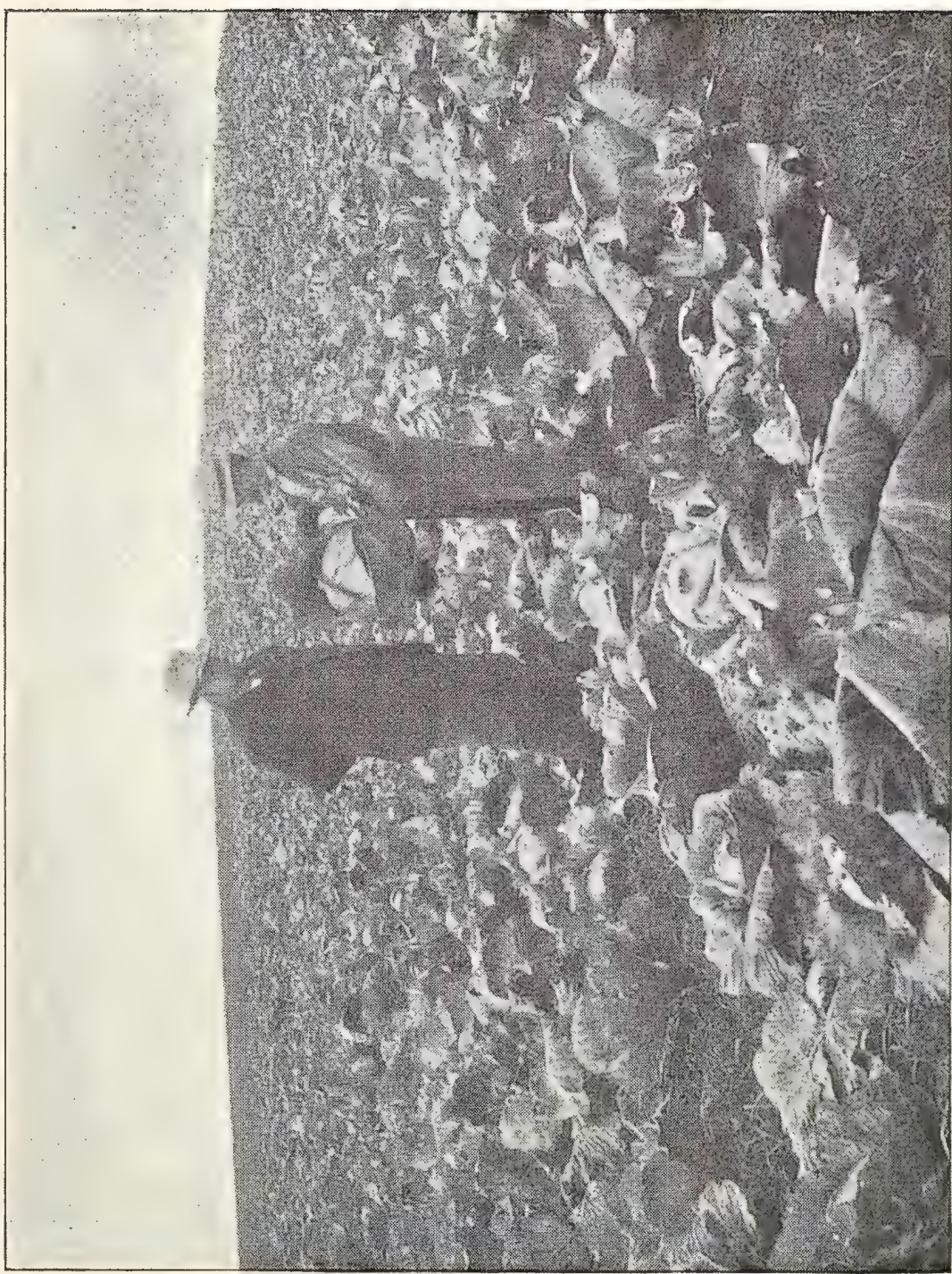
For Fruit and Shade Trees, and Hardy Shrubs.

This manure is prepared for fruit-trees, such as apples, pears, peaches and plums; also for shade-trees and hardy shrubs. Dr. Jabez Fisher, of Fitchburg, one of the best authorities on apple-trees, contends that they should be enriched the same as any other crop, and that, if properly fertilized and judiciously thinned, they will bear more or less every year.

If trees, especially fruit-trees, are kept growing vigorously, their fruit will be less liable to attack from insect pests and fungus growths. In other words, it will be smoother and firmer, more juicy and delicious, and will keep longer. This fertilizer will produce a healthy growth of vigorous wood, which should be kept well cut back in order to throw the force of the tree into the fruit.

Directions. For Fruit-Trees, such as apples, pears, peaches and plums, apply at the rate of five to twenty-five pounds to each tree, broadcast, and extending out as far as the branches reach. If possible, plough it into the soil, but, if not possible, keep the grass cut under the trees, so that the strength of the fertilizer will be left for the tree and not be absorbed by the grass crop. Apply about five pounds to trees that are three or four inches in diameter, and so go up to twenty-five pounds for trees that are fifteen to twenty years from setting.

For Shade-Trees apply as for fruit-trees, and for Hardy Shrubs apply from a pint to a quart to each shrub, or at the rate of ten pounds to two hundred square feet of border. Work it into the soil thoroughly and evenly.



CABBAGES ON STOCKBRIDGE, BEST FOR SIXTY YEARS.

Photograph of field of cabbages raised by Mr. Brackett Hall, No. Berwick, Me., on Stockbridge Cabbage Manure. Mr. Hall writes: "I commenced raising cabbage 60 years ago and have continued to cultivate 2 to 4 acres every year since, always manuring heavily with stable manure and phosphates of different kinds, but the cabbages which I manured with your Stockbridge Cabbage Manure the past season were the best I ever saw in quantity and quality."

1897		June.		1897		
SUN.	* MON.	* TUE.	* WED.	* THU.	* FRI.	* SAT.
☾	☾	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	☾	☾	☾
First Quarter, 8th.		Full Moon, 14th.		Last Quarter, 21st.		New Moon, 29th.

Bowker's Special Fertilizers.

THE BOWKER FERTILIZER COMPANY is the original and largest manufacturer of special fertilizers in this country. It is partly due to its keeping abreast of the times. It was the first to urge the use of potash in mixed fertilizers, while many others discouraged the idea. It was the first to publish an agricultural chemical price list which listed German potash and other chemicals new to agriculture. It was the first to urge the adoption of a fertilizer inspection law as a protection to reputable manufacturers as well as farmers. The Massachusetts law has since been made the basis of similar legislation throughout the United States. That the Bowker Company's efforts have been appreciated is shown by the fact that its output of special and general fertilizers amounts to more than 100 tons for every day in the year.

Bowker's Market Garden Fertilizer.

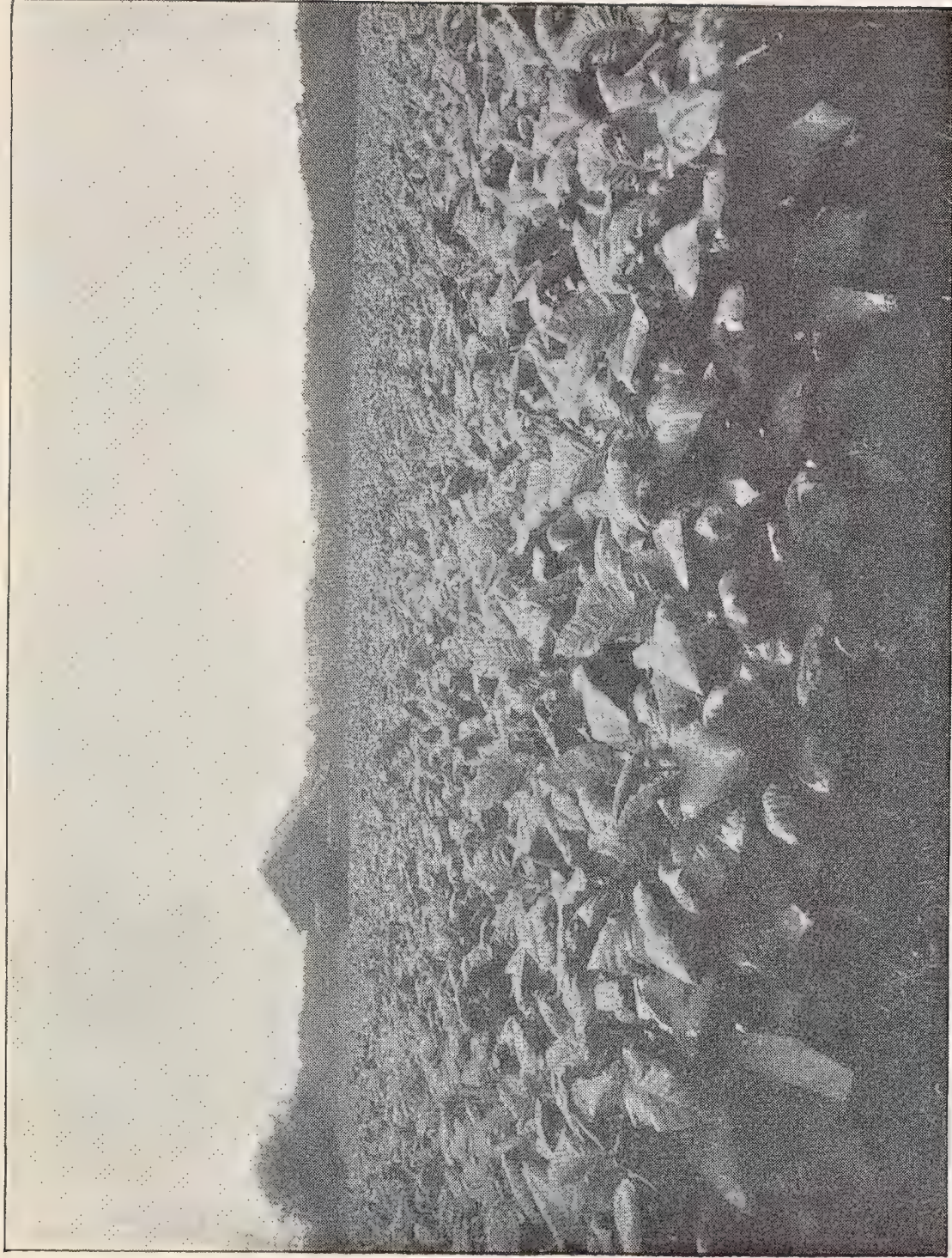
THIS is a brand of Bowker's Special Fertilizers that has met with great success in the hands of market gardeners all over New England. The large amounts of stable manure (deficient in potash) which market gardeners have applied, in many cases have so exhausted the soil of its potash that this ingredient needs to be furnished in larger quantities than common. In our Bowker's Market Garden Fertilizer an unusually large amount of potash is supplied, together with enough ammonia and phosphoric acid in soluble forms to supply what is lacking in most soils on which market garden crops have been raised with stable manure. It is a good, honest, active fertilizer, and offers to the purchaser a most excellent bargain.

Bowker's Potato and Vegetable Manure.

THIS is a high-grade fertilizer manufactured especially for potatoes, but will give good results on any other root crop. It is second only in analysis to our Bowker-Stockbridge Potato Manure. It is sold at a lower price than the Stockbridge brand, and is a popular potato fertilizer among those who have used it. The demand for it increases steadily, from which it is safe to say that it has given excellent results.

Bowker's Potato Phosphate.

THIS is, as its name indicates, a phosphate made particularly for potatoes. It is not so rich as Bowker's Potato Manure, and is therefore sold at a lower price. It is intended for use where the soil is rich in organic mat-



HIGH-QUALITY TOBACCO FOR 10 YEARS ON BOWKER'S STOCK-BRIDGE.

Photograph of an 8-acre field of tobacco grown on Stockbridge Tobacco Manure by W. W. Sanderson, South Deerfield, Mass., used 1,200 lbs. per acre in the drill. The field has been in tobacco every year for ten years on Stockbridge without any other fertilizer, except stable-manure every other year; the yield has averaged more than a ton to the acre of very fine quality and color, and the tobacco has always been sold at the highest price on account of its quality.

1897		July.		1897			
SUN.	* MON.	* TUE.	* WED.	* THU.	* FRI.	* SAT.	
☾	☾	☾	☾	I	2	3	
4	5	6	7	8	9	10	
11	12	13	14	15	16	17	
18	19	20	21	22	23	24	
25	26	27	28	29	30	31	
First Quarter, 7th.			Full Moon, 14th.		Last Quarter, 21st.		New Moon, 29th.

ter, or where manure has been ploughed in, and where a fertilizer as rich as the Potato Manure is not required. The plant food it contains is in the best form for potatoes, and will give them a good start early in the season.

Bowker's "Grape Belt" and "Fruit Special"

with Potash.

A Fertilizer Prepared Especially for Grapes and Small Fruits.

EXPERIENCE has shown that all sorts of fruit trees and plants must be better manured to produce good results. The grape, while a pulpy fruit, is full of seed; and the seed is the exhaustive part. It requires a great deal of rich nourishment to produce the seed, whether it be of grain, grass, or fruits. The whole strength of the plant is turned towards reproducing itself; and if the fruit which it produces is one particularly full of seeds, then the ground must be made rich.

Mineral elements are also particularly essential in the production of grapes, especially potash and phosphate of lime. The grape probably requires more potash than almost any other plant, because in it is found a combination of tartaric acid and potash. In fact, as is well known, the bitartrate of potash or "cream of tartar," which is used in baking powders, is extracted from the juice of grapes and grape skins; and this shows conclusively that the grape must absorb a great deal of potash in order to develop this form of potash in its juice and skin. This must come from the soil through the sap taken in at the roots. Therefore, as it is a part of nature to elaborate not only the seed, but also "cream of tartar" in the grape out of the soil ingredients, it is necessary that the manure which is applied should be rich in those elements which go to form healthy roots and wood, tender pulp, vigorous seed, and finally, sweet juices which makes the fruit so appetizing and healthful. In Bowker's Grape and Fruit Special we have what we think is a very happy combination of ammonia, dissolved bone, and

potash. There is probably no grape fertilizer on the market so rich in potash and in that form which is particularly adapted to the growth of grapes.

Bowker's Tobacco Starter.

For use alone or with stable manure.

THIS is made especially to be used on tobacco beds for securing early vigorous plants, and it can also be used in the drill to secure quicker growth and an earlier maturity. In the starting of tobacco, something should be used to give a vigorous growth, especially with the Havana varieties, and also to promote a steady strong growth during the season. Bowker's Tobacco Starter is made from the best materials obtainable, which are combined in the right forms and associations to secure early growth and rapid maturity.

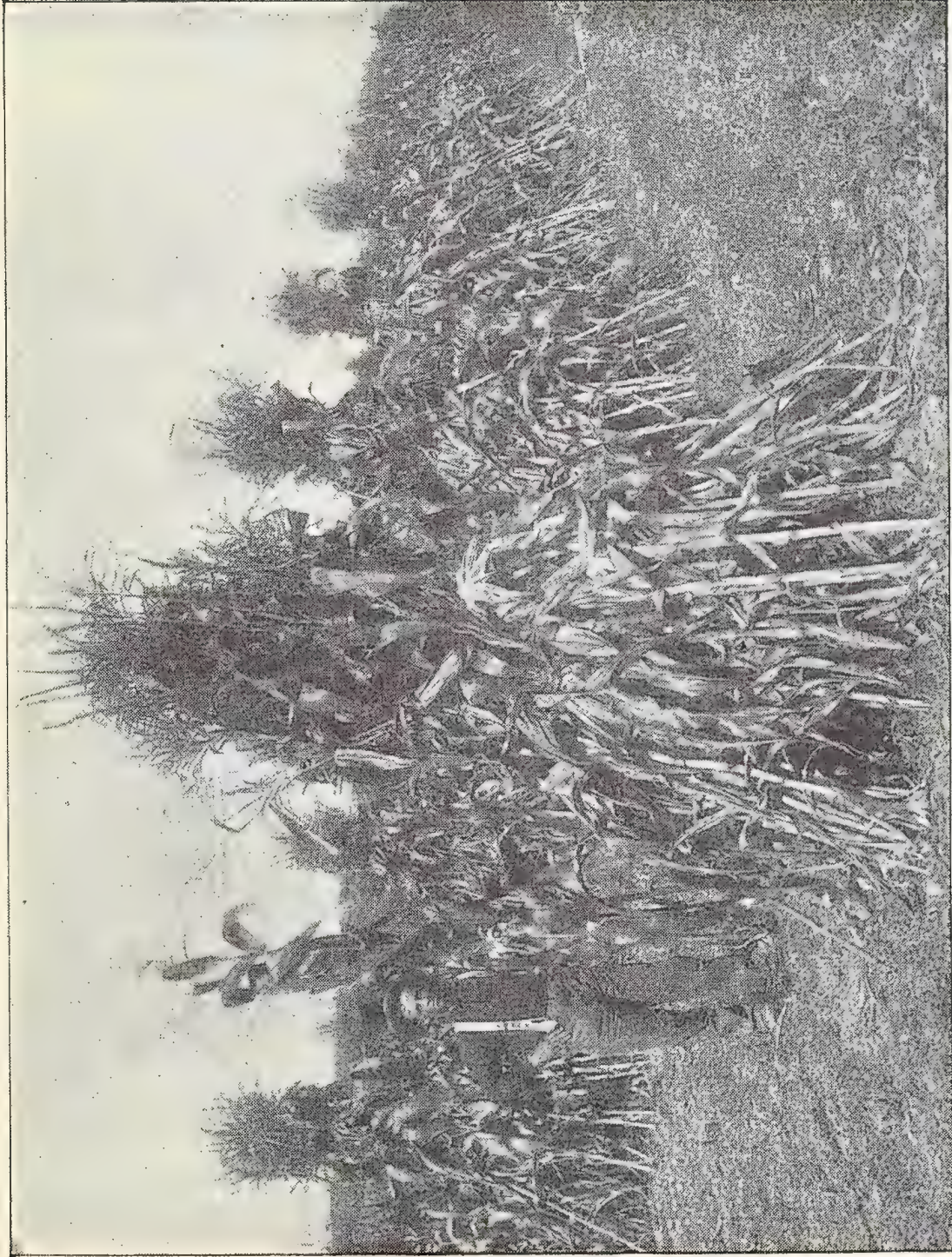
Where dry seed is sown, a larger quantity can be used on the bed than where sprouted seed is used.

For application in the hill or drill in the field, apply 400 to 800 pounds per acre, depending upon whether the soil is light or heavy: light soil will require less for starting a crop than a heavy soil. Sow it along the drill, drawing a brush afterwards to mix it with the dirt, or ridge back lightly leaving a low ridge.

This Starter can be used in connection with our Bowker-Stockbridge Double Strength Tobacco Manure, or with our Bowker's Tobacco Grower, or with stable manure or home compost.

Bowker's Tobacco Grower.

THIS is a high-grade complete fertilizer for tobacco, but containing much less potash and ammonia than the Stockbridge Tobacco Manure, for lands where these ingredients are not required in so large quantities; for instance, in the West where cropping has not been so long continued as in the Connecticut Valley.



FINE CORN ON BOWKER'S STOCKBRIDGE.

Mr. W. W. Cornwall of South Wales, N. Y., writes: "I send you photograph of my corn-field. The corn was planted May 20, on 200 lbs. per acre of the Stockbridge Corn Manure in the hill. When we cut the corn for the silo it averaged eleven feet high. I have thoroughly tested the Stockbridge Manures and Bowker's Fertilizers, and feel that I can safely recommend them to my friends."

1897		August.		1897		
SUN.	* MON.	* TUE.	* WED.	* THU.	* FRI.	* SAT.
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	☾	☾	☾	☾
First Quarter, 5th.		Full Moon, 12th.		Last Quarter, 20th.		New Moon, 27th.

BOWKER'S PURE ANIMAL FERTILIZERS.

MADE AT THE BRIGHTON SLAUGHTER-HOUSES.

Introduced in 1873.



TWENTY-FOUR years ago, Mr. W. H. Bowker, as agent of the Butchers' Association of Brighton, introduced to farmers the first Animal Fertilizer made in this country. Prior to 1873 the butchers about Boston were slaughtering in different parts of the city and adjacent towns, feeding their waste to hogs or burying it up. Their places were becoming nuisances. By an act of the legislature they were incorporated as an association, with slaughter-houses at Brighton, some twenty or thirty of them, with one large rendering-house common to all.

Since then the butchering has been carried on chiefly at this place, and to this rendering or boiling-house is brought daily all the blood, waste portions of meat, and bone, which are treated in large tanks with steam, the grease extracted, and the residue is dried and ground to a fine powder. There are three products: dried blood, dried meat and bone, and dried bone. There are hundreds of cattle and sheep slaughtered here daily, and what was formerly thrown away now brings in a revenue of from \$30,000 to \$40,000 annually.

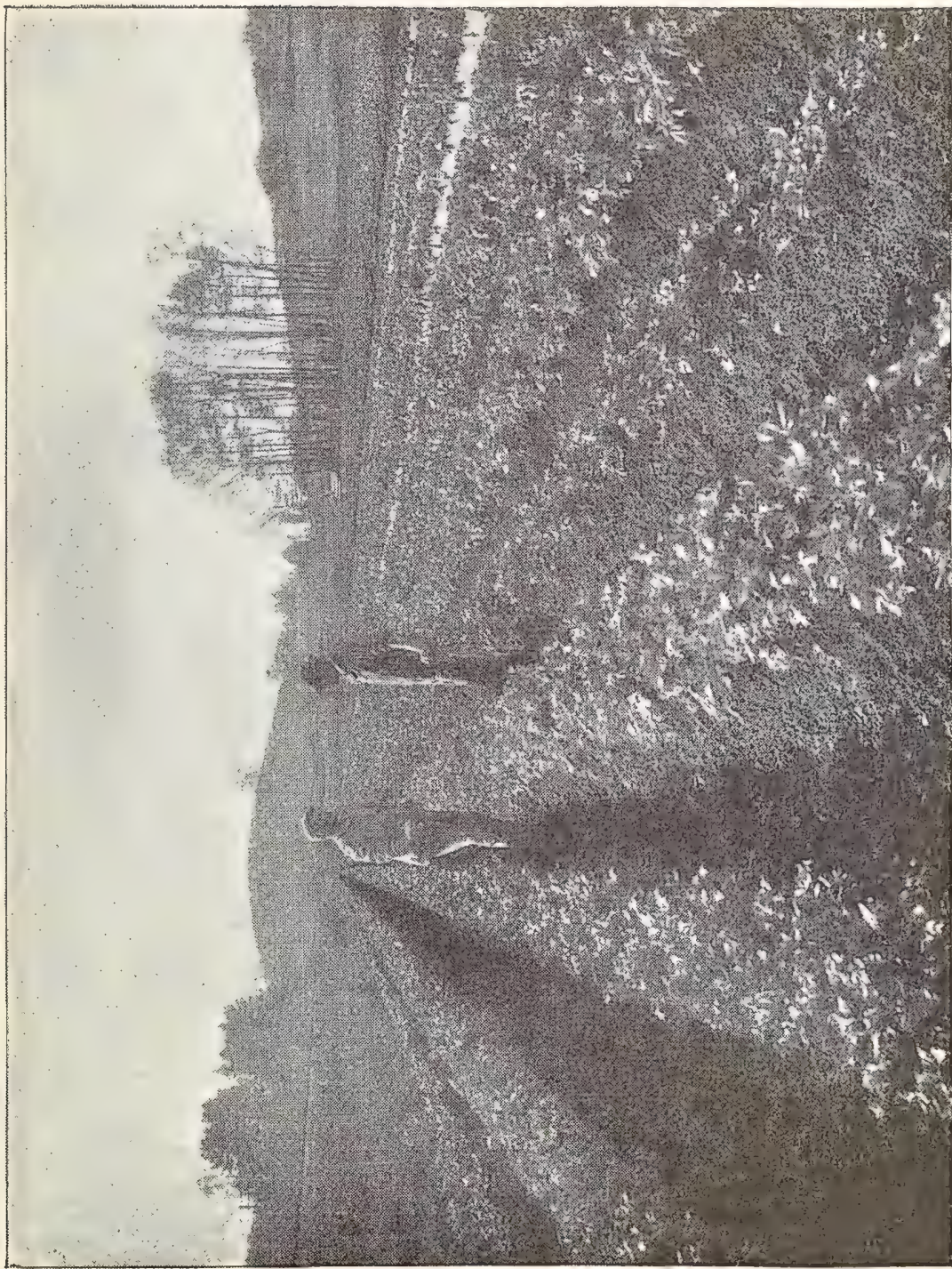
These animal fertilizers are the same to-day as in 1873. They are absolutely pure and are in no sense stimulants. In fact there is nothing which is a stimulant to plants in the same sense that whiskey is a stimulant to man. The reason these animal fertilizers make plants grow is because they contain the same elements as plants, the animals having fed upon grass and grain and converted them into muscle and bone, the waste parts of which are returned by this method to the soil. What has come out of the soil, in the shape of domestic animals which have fed upon crops raised therefrom, must be good to return to the soil and must help to build it up.

We offer these Animal Fertilizers under four brands:—

**Bone and Blood,
Bone, Blood and Potash,
Soluble Animal Fertilizer,
Fresh Ground Bone.**

The BONE AND BLOOD is composed of blood, bone and waste meat thoroughly steamed, dried and ground to a fine powder. It contains, therefore, ammonia and phosphoric acid, *but no potash*.

BONE, BLOOD AND POTASH contains the blood and bone with potash added, the bone, however, being partially dissolved so as to render it more soluble in the soil, and the potash is added to make a complete fertilizer.



A FINE FIELD OF CELERY ON STOCKBRIDGE.

Photograph of celery field belonging to Mr. Alden Derby, No. Leominster, Mass., showing a remarkably handsome growth. Mr. Derby has used the Stockbridge extensively for years, and is a firm believer in their value for all farm crops.

1897		September.		1897		
SUN.	* MON.	* TUE.	* WED.	* THU.	* FRI.	* SAT.
☾	☾	☾	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	☾	☾
First Quarter, 3rd.			Full Moon, 10th.		Last Quarter, 18th.	
					New Moon, 26th.	

SOLUBLE ANIMAL FERTILIZER is simply the blood and bone with *all the bone* thoroughly dissolved and the potash added to balance it and make it right for quick-growing crops.

Bowker's Fine Ground Bone.

Made at the Brighton Slaughter-Houses.

This bone is manufactured from the waste bone (chiefly the head bones) of the cattle and sheep killed at the Brighton slaughter-houses, where 1,500 to 2,000 animals are slaughtered daily. It is practically raw ground bone, the only thing extracted from it being the grease, which is of no value as a fertilizer. After the grease is extracted, the bone is dried and ground in its pure state. Much of the bone which is sold nowadays has nearly all the glue extracted, which is like skimming the cream from milk; it is the richest part. Some manufacturers, after extracting the glue, reinforce their bone by grinding in hoof meal or horn waste, which supplies the ammonia that the glue has removed, and makes the bone show up better in the analysis, but these things are insoluble and worthless in the soil, and the bone therefore is not as good for fertilizing purposes.

Bowker's Bone is not treated in this way, but contains all the properties of raw ground bone, rich in natural ammonia and free from all adulterations of whatever kind or nature. To prove this we shall be glad to show any one our works, where they will find no glue process in operation. This bone is not as white as bleached bone, which is picked up about the pastures, or as the bone from which glue has been extracted, but actually contains in value many dollars per ton more of *available plant-food*, and a better crop is produced.

Bowker's Bone and Potash. Square Brand.

It is unnecessary to speak of the value of bone, for it has been used from time immemorial upon all sorts of crops. Of course, it is not active, like dissolved bone or superphosphate, but it has been taken out of the soil by animals, and it is one of Nature's ways of building up the soil by returning it. We add to it a good percentage of potash, and for this reason it will be found especially valuable for seeding down grass-land, and also in New Jersey and Western New York on fruit-trees and small fruit, such as grapes, peaches, pears, etc., and in Eastern New York for hops, where the land is rich in organic matter or rich by previously manuring,—and, in fact, in all places where bone and potash are needed. It is a splendid substitute for bone and ashes, and much cheaper, and as it is a sensible combination, it is becoming very popular.

Bowker's General Fertilizers.

The following well-known brands of fertilizers have been so long on the market, and have given so good results in the field on all kinds of farm crops, that it is not necessary to call attention to them here more than to mention their names:

Bowker's Hill and Drill Phosphate.

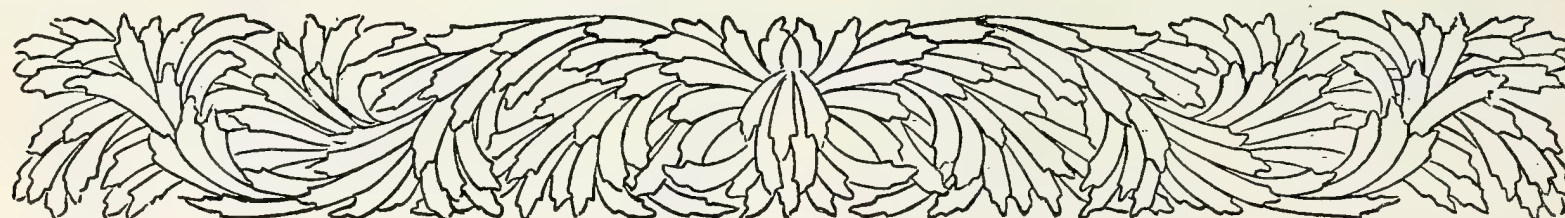
Bowker's Farm and Garden Phosphate.

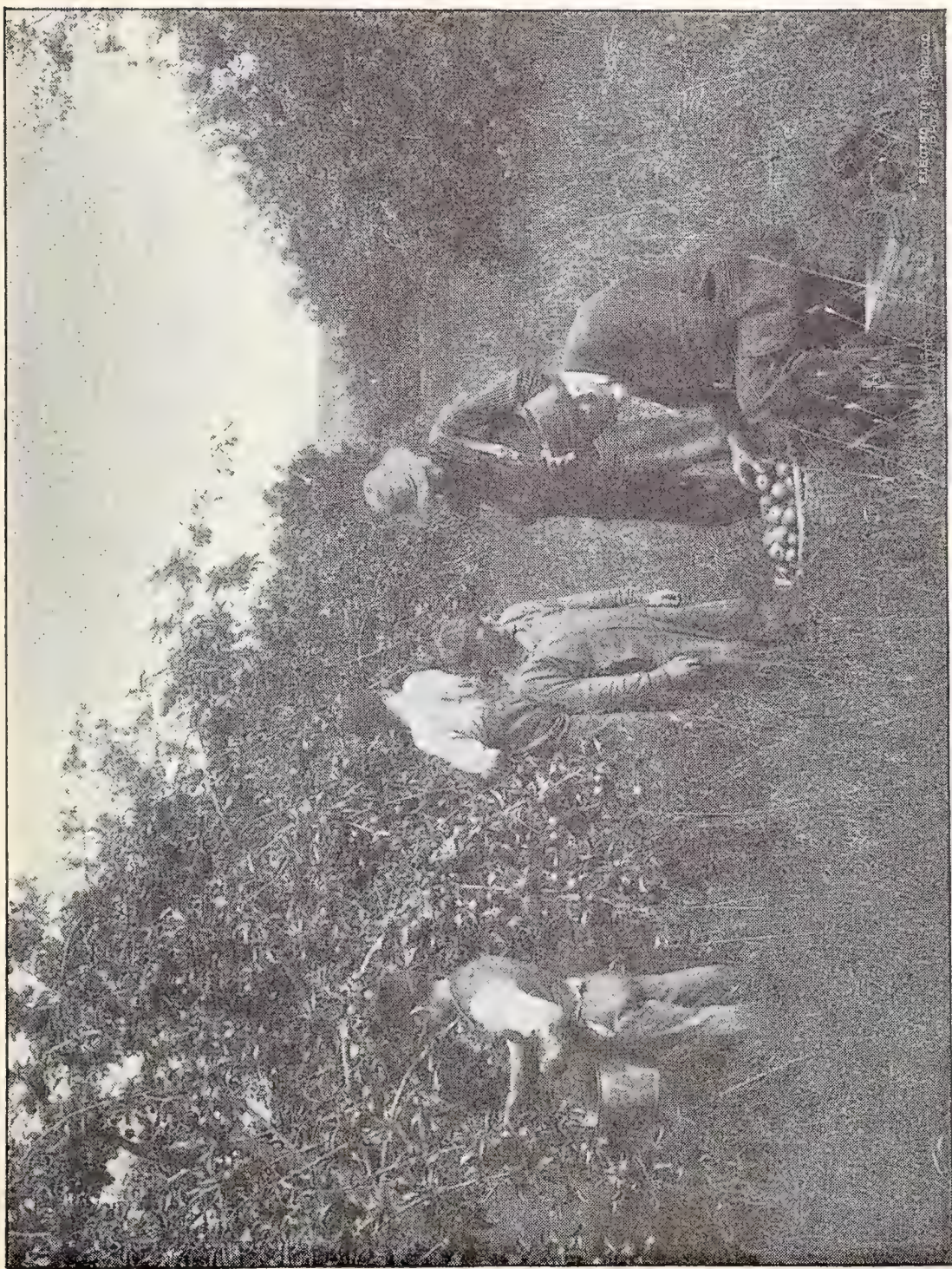
Bowker's Sure Crop Phosphate.

Bowker's Dissolved Bone Phosphate (with or without Potash).

Bowker's Harvest Bone.

Bowker's Wheat Grower.





APPLES ON BOWKER'S STOCKBRIDGE.

Photograph of orchard belonging to Mr. John Hall of No. Berwick, Me., who writes: "I used Bowker's Stockbridge Manure on my orchard (photograph above), 25 lbs. spread on the ground under each tree, and the results were immense. I never had any trees produce like them before, both in quantity and quality; neither have I ever seen an orchard clothed with such beauty as this. Farmers cannot afford to be without your fertilizer."

1897		October.		1897		
SUN.	* MON.	* TUE.	* WED.	* THU.	* FRI.	* SAT.
☾	☾	☾	☾	☾	I	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24/31	25	26	27	28	29	30
First Quarter, 3d.		Full Moon, 10th.		Last Quarter, 18th.		New Moon, 25th.

CANADA WOOD ASHES.

NATURE'S PLANT-FOOD.

"Why don't you handle ashes?" has been often asked of us. Heretofore we have not handled them because of the uncertainty of their composition and the difficulty of getting supplies such as we felt warranted in offering our trade. We have, however, now arranged to have our own men collect them and ship them from Canada.

Every one knows the value of ashes. *They are no experiment.* As is well known, ashes are not a complete, balanced fertilizer. They lack ammonia and phosphoric acid, but they contain potash and lime, both of which are essential not only as plant-food, but also as sweeteners of the soil and solvents of other plant-food ingredients. So far as they supply potash and lime they are "nature's plant-food." These things have been extracted from the soil by the trees, and now we return them in the shape of ashes. They are considered especially valuable as a top-dressing for grass-land and lawns, and also for use in connection with stable manure, or where the soil is rich from previous manuring, but needs something to quicken and sweeten it.

We solicit inquiries concerning ashes in carload lots or in smaller quantities, to be shipped direct from Canada, or from our warehouses in Boston or New York.

THOMAS PHOSPHATE SLAG.

In the manufacture of steel under certain processes, a by-product is created which contains 17 to 18% of phosphoric acid. This slag is being used in some places as a fertilizer where phosphoric acid only is required, but as it contains neither ammonia nor potash, it is of course not a complete fertilizer, and does not replace in the soil these two important ingredients of plant-food. Nevertheless it affords a good and fairly cheap source of phosphoric acid, and if used in connection with some source of potash, say wood ashes for example, and some source of ammonia, like sulphate of ammonia or dried blood, it will make a complete fertilizer, good for many crops; or if the farmer is certain that his land requires nothing but phosphoric acid, it makes a good fertilizer for him to use alone. It is furnished in the form of an exceedingly fine, dry powder, and is packed in bags.

We offer it under our well-known guarantee as to strength, and stand ready to make good in value any deficiency that may be found in this respect.

BOWKER'S FISH FERTILIZERS.

Along the whole sea-coast from the eastern tip of Maine to the southern point of Florida, there is hardly a farmer who does not realize the value of fish as a fertilizer. The first settlers from the other countries found the Indians using it under their corn, and from that time to the present it is safe to say that very few pounds of fish have gone to waste for want of use as a fertilizer. Fish furnishes ammonia in large quantities, and bone also. We supply in our fish fertilizers either the fish and fish-bones ground fine and ready for use, or mixed with potash to make complete fertilizers for all crops. The richness of these fertilizers in organic ammonia makes them particularly valuable for crops that should make a large growth of foliage in a short time.

BRANDS.

Bowker's Dry Fish.

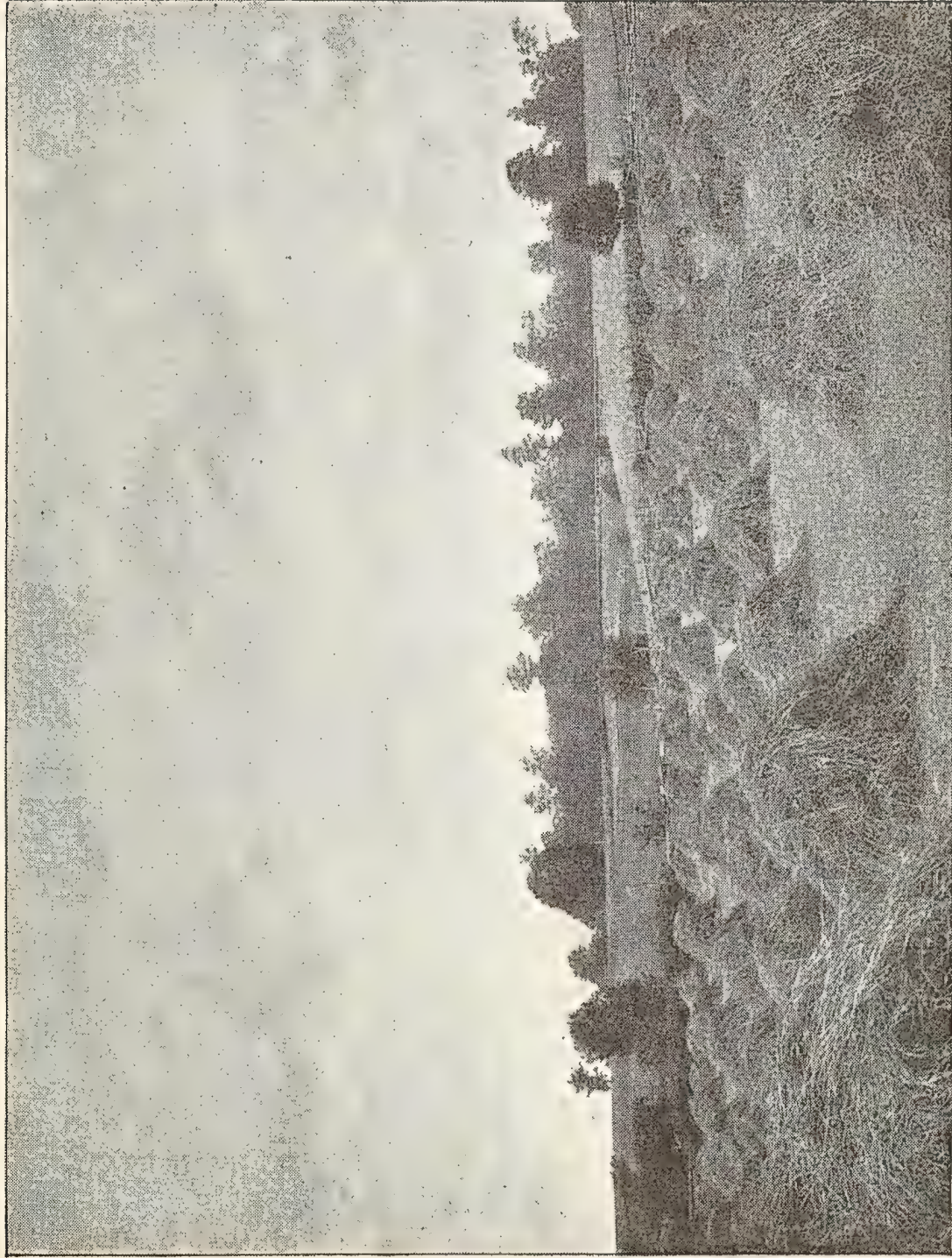
Bowker's Fine Ground Dry Fish.

Bowker's Fish and Potash ☐ Brand.

Bowker's Fish and Potash "D" Brand.

Bowker's Bristol Fish and Potash.

Bowker's Gloucester Fish and Potash.



OVER 3 TONS PER ACRE ON 28 ACRES.

Photograph of a portion of Mr. B. P. Clark's hay-field, Groton, N. Y., which was seeded with Bowker's Hill & Drill Phosphate and which yielded 85 tons of hay on the 28 acres.

1897		November.		1897		
SUN.	* MON.	* TUE.	* WED.	* THU.	* FRI.	* SAT.
☾	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	☾	☾	☾	☾
First Quarter, 1-30th.			Full Moon, 9th.		Last Quarter, 17th.	
					New Moon, 24th.	

BOWKER'S ODORLESS FERTILIZERS

FOR THE

LAWN, GARDEN AND CONSERVATORY,

FOR AMATEUR AND PROFESSIONAL USE.

Bowker's Lawn and Garden Dressing.

The original; introduced in 1873. Odorless, concentrated, cheapest, easiest and cleanest to use.

Chemistry has solved many problems, one of which is the manufacture, from clean chemicals, of an efficient substitute for stable manure as a dressing for lawns and gardens.

The Bowker Fertilizer Company twenty years ago began the manufacture of such a preparation, calling it **Bowker's Lawn and Garden Dressing**. It is an odorless, dry chemical powder, containing all the enriching qualities of stable dressing in a form easy to apply, and in no way disagreeable to the most fastidious. It contains the same chemicals that are used in the preparation of baking-powders and medicine.

It is applied broadcast in a dry state, and will produce a strong, compact turf, covered with a luxuriant, healthy growth of rich green grass. Used in the garden, it produces beautiful flowering plants and delicious early vegetables. As it is made wholly from chemicals and by a chemical process, it is entirely free from disease germs and weed seeds; therefore it is a sanitary as well as productive dressing.

It has been used successfully for twenty years on private lawns and public grounds by amateur and professional gardeners, who could not now be tempted to go back to the old way of using on the surface unhealthy and unsightly stable manure.

Bowker's Lawn and Garden Dressing is not a stimulant, but a perfect *food* for grass and other plants. What would cost ten dollars in stable dressing can

be furnished for at least three dollars in these concentrated chemicals, and will be fully as permanent and effective, and more cleanly and healthful.

PRICES.

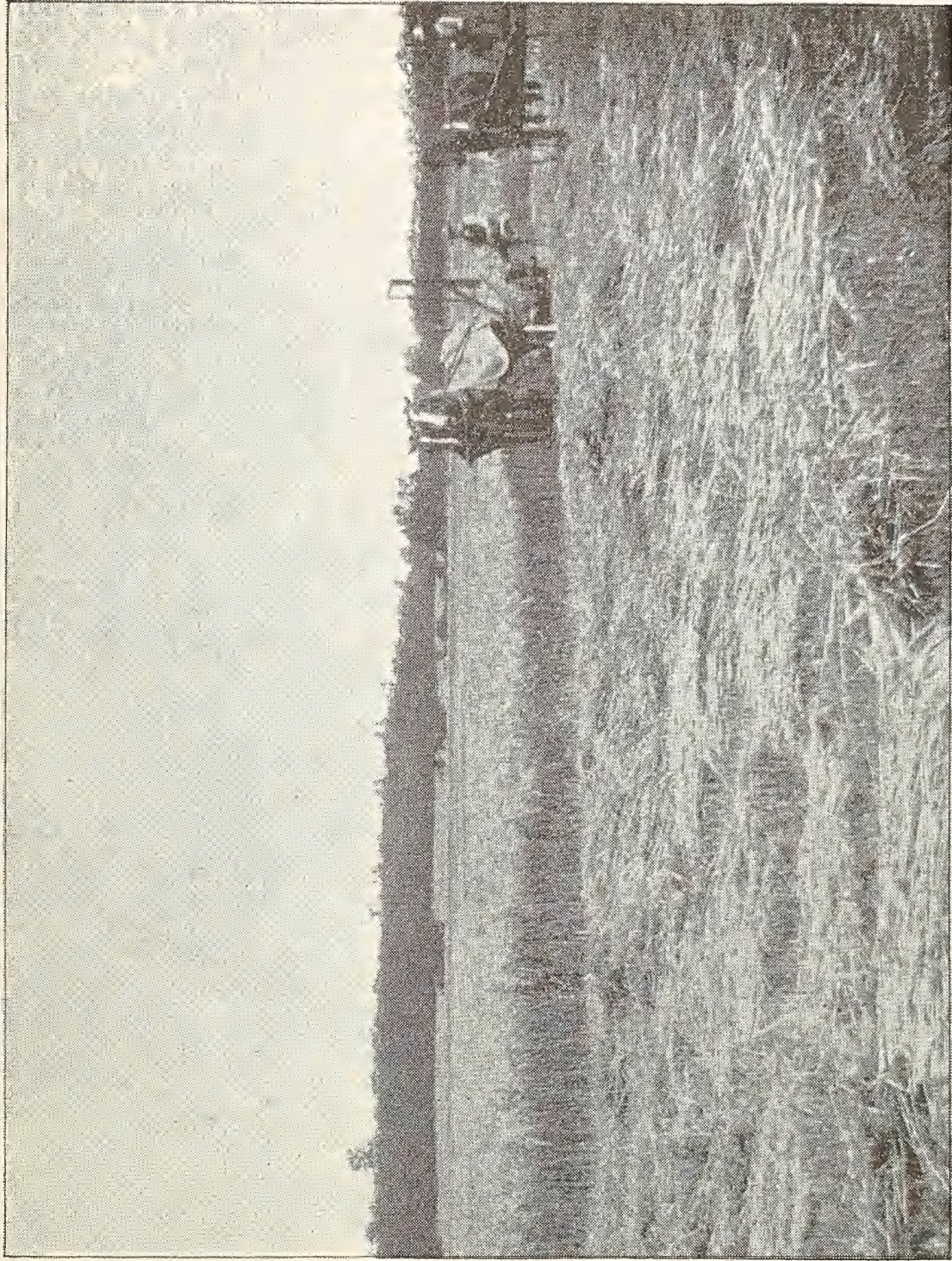
Sample bag for 500 sq. ft. of garden or 1,000 sq. ft. of lawn,	\$0.50
" " " 1,000 " " " " 2,500 " " "	1.00
50-lb. " " 2,500 " " " " 5,000 " " "	1.75
100-lb. " " $\frac{1}{8}$ acre of garden or $\frac{1}{4}$ acre of lawn	3.00

All the above packages delivered free to any station in New England, New York, New Jersey, Pennsylvania and Delaware, on receipt of price, we prepaying freight or express EXCEPT on the 50-cent sample package, which is delivered to express or freight offices ONLY in New York City or Boston. Money may be remitted by registered letter, postal note or money order.

Canada Wood Ashes for Lawns.

Collected by our own Agents.

Everyone knows the value of ashes. While they do not form a complete fertilizer, in that they lack ammonia and phosphoric acid, yet they furnish potash and lime, which are valuable not only as plant-food, but as solvents of other food ingredients which are already present in the soil. Ashes are "Nature's plant-food," because they return to the soil in some measure the elements which the trees have taken from it. They are especially recommended as a top-dressing for lawns. \$1.25 per 100 lbs. In bags containing 100 lbs.



OVER 40 BUSHELS BARLEY PER ACRE ON BOWKER'S.

Photograph of a 40-acre field of barley grown on Bowker's Fertilizer, by Mr. Wm. M. Kenyon of Kuckville, N. Y., which yielded over 40 bushels per acre. Mr. Kenyon also reports using the same amount on a field of wheat, upon which he harvested 30 bushels per acre. He is well pleased with the results obtained, and recommends it to his neighbors.

1897		December.		1897					
SUN.	* MON.	* TUE.	* WED.	* THU.	* FRI.	* SAT.			
☾	☾	☾	I	2	3	4			
5	6	7	8	9	10	11			
12	13	14	15	16	17	18			
19	20	21	22	23	24	25			
26	27	28	29	30	31	☾			
		Full Moon, 9th.		1st Quarter, 17th.		New Moon, 23rd.		First Quarter, 30th.	

Bowker's (Ammoniated) Food for Flowers.

For the Window Garden.

Do you feed your plants? Plants are living things. They need care, food and water, and protection from heat or cold. But, no matter how much care be given them, growing plants will not thrive unless they are fed.

Bowker's Flower Food feeds plants. A few grains dissolved in water will furnish a good many plants all they will need for two or three weeks. It contains fertilizing elements in a perfectly clean and soluble form.

It is not a stimulant, but a perfect *food* for plants, concentrated and easily assimilable.

It produces healthy foliage, abundant, rich and bright-colored blossoms, and prolongs the period of blossoming.

It is for sale by the dealer who sends you this circular, or we will send it by mail at the following prices: Enough for thirty plants three months, 25 cts., by mail, postpaid. Enough for thirty plants a whole year, 50 cts., by mail, postpaid. Not sold in bulk.

When you send your order, be sure to ask for Prof. Maynard's treatise on Window Gardening, which is given free with each package.

Bowker's Greenhouse Chemicals.

For use alone or in the Compost Pile.

To help break up the compost pile quickly and to fix the ammonia, and at the same time to enrich the pile, is the object of this mixture; in a word, these chemicals will not only enrich the compost, but quicken and preserve it. They can also be used alone directly on the beds or pots or in solution; for, taken together, they are a well-balanced, complete manure for all greenhouse purposes. While a great many use them in the compost, there are a great many more who use them by themselves, and find them a valuable aid for quick and profitable growth.

Bowker's Greenhouse Chemicals are compounded in such proportions as to supplement the compost, supplying deficiencies and correcting excesses. It

is also safer and surer to apply a combination of chemicals than a single chemical, unless one is absolutely certain which particular chemical is required; for a single chemical may make the compost too rich in one thing, and produce an unhealthy and one-sided growth. Men and animals feed upon a variety of foods; and plants should be nourished in the same way, if early, healthy and vigorous growth is to be secured.

Application. For the compost. For mixing with the compost pile use from 100 to 300 pounds of the chemicals to the cord, mixing them thoroughly through the pile, and letting it stand until wanted for use. If the compost is to be used in potting small and tender plants, we advise the use of about 100 pounds to the cord; but, if it is to be used on roses and hardy plants, then use as much as 300 pounds to the cord.

For use alone. For general forcing (indoors or out) apply at the rate of about one pound to each hot-bed sash, or from six to eight pounds to every 100 square feet of bed, thoroughly worked into the soil to the depth of two or three inches. This quantity is recommended when no compost at all is used in the bed; but, if a liberal dressing of compost has been applied, especially if it has had the chemicals added to it, then a smaller quantity of the clear chemicals should be used, — say not more than two to four pounds to 100 square feet.

For forcing lettuce, cabbage, tomato plants, etc., apply from four to six pounds per 100 square feet, thoroughly mixed with the soil. Half the quantity may be applied a month later.

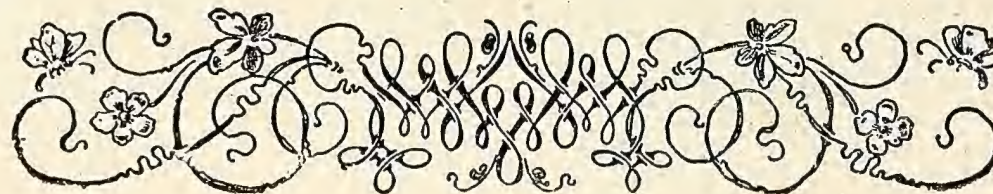
For carnations, violets and similar plants use at the rate of four to six pounds for every 100 square feet, or two to three pounds may be applied at one dressing, and then a month later apply two or three pounds more.

For rose borders and hardy plants apply at the rate of from six to eight pounds per 100 square feet, thoroughly worked into the soil. If it is desired to force the growth, a second application of the same quantity may be made a month later.

For use in solution. Many prefer to apply the chemicals in solution; and in that case they can be dissolved at the rate of three pounds in a barrel of water, or two tablespoonfuls in a gallon of water, and the plants watered with this solution the same as if it were clear water, applying a small quantity to the smaller and more tender plants, like heliotropes, and a larger quantity to the larger and more hardy plants, like roses. *The solution should be thoroughly stirred each time it is used*, as all of it is not immediately soluble in water, but becomes so after remaining in the soil for a little while. The particles which are deposited on the surface should be dug into the earth. It should not be poured over the leaves, but directly on the earth.

When to apply. If the chemicals are used *in solution*, they may be applied once a week for three or four weeks, or until the plants begin to start, which will be noticed in a greener growth; after that, not oftener than once in four or six weeks. *This does not apply when they are used in the earth.*

Send \$1.00 for a trial bag, sufficient for $\frac{1}{2}$ cord of compost, or 600 to 1,000 sq. feet of sash; or \$3.00 for four times as much, delivered to cars or express in Boston or New York.



◆ ————— BOWKER'S ————— ◆

Agricultural Chemicals and Raw Materials,

FOR MIXING FERTILIZERS AT HOME.

STATION tests and field results both show that Bowker's Fertilizers are economical to use: that many of them are actually "double strength," containing twice as much plant-food in forms best adapted to different crops; and that they may be relied upon to do all that such high-grade fertilizers may do.

For various reasons, however, some farmers prefer to mix their fertilizer at home. To all such we are prepared to furnish the materials at the lowest market rates.

We have a capital of one million dollars invested by substantial business men for the purpose of carrying on the fertilizer business legitimately in the most approved manner. Our factories are equipped with special grinding and mixing machinery; our acid plant, recently enlarged and perfected, is claimed by experts who have visited it to be the best in the country. We handle an average of 100 tons of fertilizer, or fertilizer material, every working day in the year; and we have found no order too large for us to handle, nor is any too small to receive careful attention. If a farmer desires advice, or to consult about any special formula, we shall be glad to give the benefit of our experience.

We guarantee the chemicals offered below to be of the full strength represented.

	Size of bags.		Size of bags.
Fresh Ground Bone. 3 to 4 per cent. ammonia; 18 to 22 per cent. phosphoric acid.	100 lbs.	Dry Ground Fish. 8 to 10 per cent. ammonia; 10 to 12 per cent. bone phosphate.	125 lbs.
Market Bone. 2 to 3 per cent. ammonia; 16 to 20 per cent. phosphoric acid.	100 lbs.	Dry Ground Fish. 6 to 8 per cent. ammonia; 12 to 14 per cent. bone phosphate.	125 lbs.
Dried Blood. 12 to 14 per cent. ammonia.	200 lbs.	Dissolved Bone. 2 to 3 per cent. ammonia; 10 to 12 per cent. soluble and available, and 12 to 14 per cent. total, phosphoric acid.	200 lbs.
Dried Blood. 10 to 12 per cent. ammonia.	200 lbs.	Dissolved Bone Black. 15 to 18 per cent. soluble and available phosphoric acid.	200 lbs.
Dried Blood. 8 to 10 per cent. ammonia.	200 lbs.	Dissolved Bone Black. 13 to 15 per cent. soluble and available phosphoric acid.	200 lbs.
Sulphate of Ammonia. 24 to 25 per cent. ammonia. In original bags.	About 270 lbs.	Plain Superphosphate. 13 to 15 per cent. soluble and available phosphoric acid.	200 lbs.
Nitrate of Soda. 95 to 98 per cent. purity. In original bags.	About 280 lbs.	Muriate of Potash. 80 to 85 per cent. In original bags.	224 lbs.
Fine Ground Bone Tankage. 6 to 7 per cent. ammonia; 30 to 35 per cent. bone equal 14 to 16 per cent. phosphoric acid.	200 lbs.	Double Sulphate of Potash and Magnesia. 48 to 52 per cent. sulphate of potash; 35 to 40 per cent. sulphate of magnesia, and not over 2½ per cent. chlorine; 26 to 28 per cent. actual potash. In original bags.	224 lbs.
Blood and Bone, 7 to 8 per cent. ammonia; 25 to 30 per cent. bone, equal 11 to 13 per cent. phosphoric acid.	200 lbs.	High-grade Sulphate of Potash. 90 to 95 per cent. sulphate of potash; 48 to 52 per cent. actual potash. In original bags.	224 lbs.
Blood and Bone. 8 to 9 per cent. ammonia; 20 to 25 per cent. bone, equal 9 to 11 per cent. phosphoric acid.	200 lbs.	Kainit. 23 to 25 per cent. sulphate and muriate of potash; 12 to 13 per cent. actual potash.	200 lbs.
Blood and Bone. 9 to 10 per cent. ammonia; 15 to 20 per cent. bone, equal 7 to 9 per cent. phosphoric acid.	200 lbs.	Sulphate of Magnesia (Kieserite). 50 to 55 per cent. sulphate magnesia.	200 lbs.
Dry Ground Fish. 10 to 12 per cent. ammonia; 8 to 10 per cent. bone phosphate	125 lbs.	Flour of Gypsum (Land Plaster). A <i>freshly ground</i> article of pure Nova Scotia Plaster, white and fine.	200 lbs.

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CALENDAR AND CATALOGUE.**BOWKER**

It is now nearly twenty-five years since Bowker's Animal Meal for fowls was first put on the market, and from that time to this it has led all other poultry foods in quality, results and sales. It is made of fresh sweet bones and fresh sweet meat, thoroughly cooked under steam pressure, dried and ground to a fine sweet "Animal Meal" to be fed to fowls and chicks. It builds up and strengthens the system, and makes a sound healthy growth of flesh and bone, because it is a pure meat ration, free from all drugs, and hence furnishes to laying hens just the material they need to elaborate into the egg and its shell. Hence

**"IT MAKES HENS LAY,
IT MAKES CHICKENS GROW."**

It is now sold only in yellow bags, in order to make sure that our customers get the original genuine Bowker's Animal Meal. Its success has led others to imitate it in name and appearance. Be sure to buy it only when packed in the yellow bags.

OTHER POULTRY SUPPLIES:

(First Quality Only.)

Ground Beef Scraps.
Cracked Bone.
Fish Meal.

Ground Oyster Shells.
Bone Meal for Cattle.
Egg-Lime Grit.

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**THE BOWKER COMPANY,
BOSTON.**

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